Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

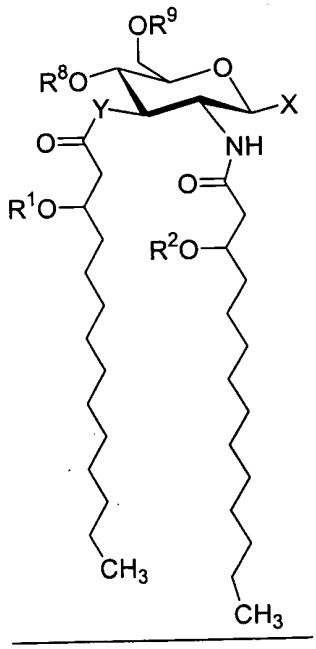
1 - 90. (canceled)

91. (currently amended) A method of enhancing the immune response in an animal which comprises administering to the animal a composition ~~according to claim 2~~ comprising:

(a) at least one aminoalkyl glucosaminide phosphate (AGP); and

(b) at least one saponin;

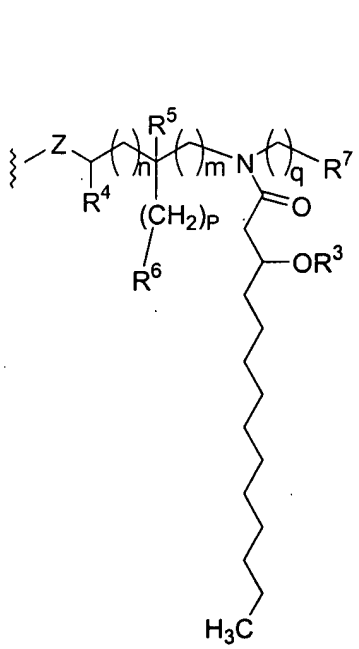
wherein the AGP comprises a compound having the structure:



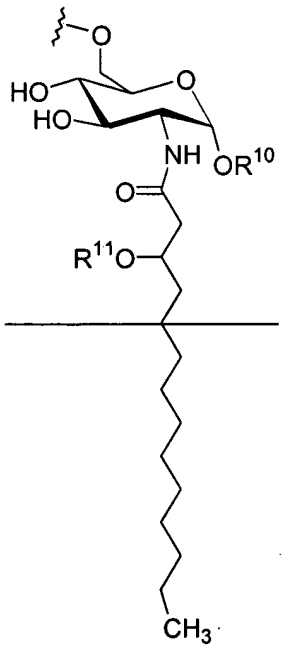
(I)

and pharmaceutically acceptable salts and derivatives thereof, wherein Y is –O- ~~or –NH-~~; R^1 and R^2 are each independently selected from saturated and unsaturated ~~(C_2-C_{24})~~ (C_{10}-C_{14})aliphatic

acyl groups; R^8 is $P(O)(OH)_2$ ~~H or $PO_3R^{11}R^{12}$, wherein R^{11} and R^{12} are each independently H or (C_1-C_4) aliphatic groups; R^9 is H, CH_3 or $PO_3R^{13}R^{14}$, wherein R^{13} and R^{14} are each independently selected from H and (C_1-C_4) aliphatic groups; and wherein at least one of R^8 and R^9 is a phosphorus-containing group, but R^8 and R^9 are not both phosphorus-containing groups;~~ and X is ~~a group selected from the formulae:~~

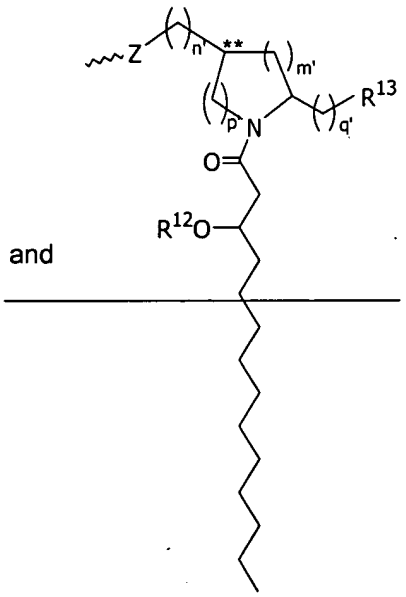


(Ia)



~~(Ib)~~

and



~~(Ic)~~

wherein the subscripts m and q are 0 and n and p are 0, 1, or 2 ~~n, m, p, and q, n', m', p' and q' are each independently an integer of from 0 to 6, provided that the sum of p' and m' is an integer from 0 to 6~~; R^3[,] ~~R^{11}, and R^{12} are independently~~ is a saturated or unsaturated optionally substituted aliphatic ~~(C_2-C_{24})~~ (C_{10}-C_{14})acyl group, provided that ~~when X is formula (Ia), one of R^1, R^2 and R^3 is optionally hydrogen~~; R^4 and R^5 are independently selected from H and methyl; R^6 is selected from H, OH and COOH, provided that the stereochemistry of the carbon atom to which R_5 is attached is not R when R_6 is OH or COOH; ~~and~~ R^7 is H ~~are independently selected from H, OH, (C_1-C_4)oxyaliphatic groups, PO_3H_2, OPO_3H_2, SO_3H, OSO_3H, $NR^{15}R^{16}$, SR^{15}, CN, NO_2, CHO, CO_2R^{15}, $CONR^{15}R^{16}$, $PO_3R^{15}R^{16}$, $OPO_3R^{15}R^{16}$, SO_3R^{15} and OSO_3R^{15}, wherein R^{15} and R^{16} are each independently selected from H and (C_1-C_4)aliphatic groups; R^{10} is selected from H, CH_3, PO_3H_2, ω-phosphonooxy(C_2-~~

~~C_{24})alkyl, and ω-carboxy(C_1-C_{24})alkyl; R^{13} is independently selected from H, OH, (C_1-C_4)oxyaliphatic groups, $PO_3R^{17}R^{18}$, $OPO_3R^{17}R^{18}$, SO_3R^{17}, OSO_3R^{17}, $NR^{17}R^{18}$, SR^{17}, CN, NO_2, CHO, CO_2R^{17}, and $CONR^{17}R^{18}$, wherein R^{17} and R^{18} are each independently selected from H and (C_1-C_4)aliphatic groups~~; and Z is –O- ~~or S~~.

92.(currently amended) A method ~~of enhancing the immune response in an animal which comprises administering to the animal a composition~~ according to claim ~~30~~ 91 wherein the saponin is selected from naturally obtained saponins, synthetically obtained saponins, saponin conjugates, saponin derivatives, and saponin mimetics.

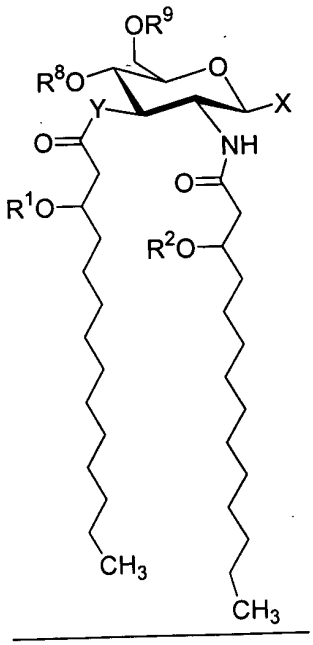
93. (canceled)

94. A method of enhancing the immune response in an animal to an antigen which comprises administering to the animal a composition comprising:

(a) at least one aminoalkyl glucosaminide phosphate (AGP); and

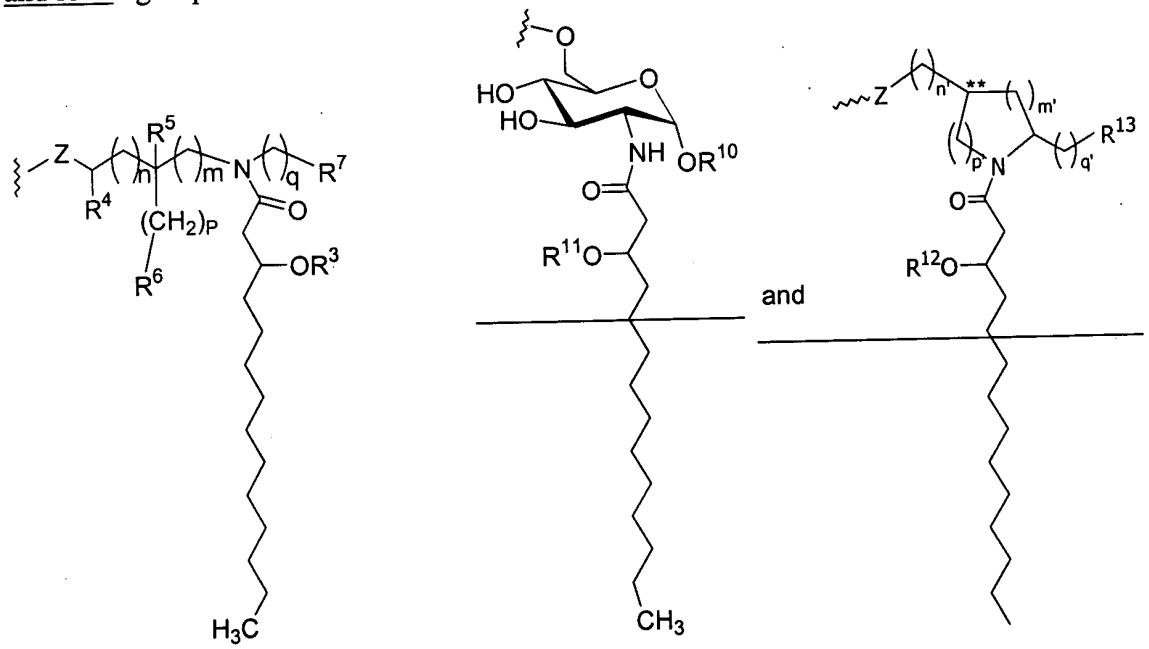
(b) at least one saponin;

~~according to claim 2~~ in combination with an antigen, wherein the AGP comprises a compound having the structure:



(I)

and pharmaceutically acceptable salts and derivatives thereof, wherein Y is –O- ~~or –NH-~~; R^1 and R^2 are each independently selected from saturated and unsaturated ~~(C_2-C_{24})~~ (C_{10}-C_{14})aliphatic acyl groups; R^8 is $P(O)(OH)_2$ ~~H or $PO_3R^{11}R^{12}$, wherein R^{11} and R^{12} are each independently H or (C_1-C_4) aliphatic groups~~; R^9 is ~~–H, $-CH_3$ or $PO_3R^{13}R^{14}$, wherein R^{13} and R^{14} are each independently selected from H and (C_1-C_4) aliphatic groups; and wherein at least one of R^8 and R^9 is a phosphorus-containing group, but R^8 and R^9 are not both phosphorus-containing groups;~~ and X is ~~a group selected from the formulae:~~



(Ia) ~~(Ib)~~ ~~(Ic)~~

wherein the subscripts m and q are 0 and n and p are 0, 1, or 2 ~~n, m, p, and q, n', m', p' and q' are each independently an integer of from 0 to 6, provided that the sum of p' and m' is an integer from 0 to 6~~; R^3[,] ~~R^{11}, and R^{12} are independently~~ is a saturated or unsaturated optionally substituted aliphatic ~~(C_2-C_{24})~~ (C_{10}-C_{14})acyl group~~, provided that when X is formula (Ia), one of R^1, R^2 and R^3 is optionally hydrogen~~; R^4 and R^5 are independently selected from H and methyl; R^6 is selected from H, OH and COOH, provided that the stereochemistry of the

carbon atom to which R_5 is attached is not R when R_6 is OH or COOH; ~~and~~ R^7 is H ~~are independently selected from H, OH, (C_1-C_4)oxyaliphatic groups, PO_3H_2, OPO_3H_2, SO_3H, OSO_3H, $NR^{15}R^{16}$, SR^{15}, CN, NO_2, CHO, CO_2R^{15}, $CONR^{15}R^{16}$, $PO_3R^{15}R^{16}$, $OPO_2R^{15}R^{16}$, SO_3R^{15} and OSO_3R^{15}, wherein R^{15} and R^{16} are each independently selected from H and (C_1-C_4)aliphatic groups; R^{10} is selected from H, CH_3, PO_3H_2, ω-phosphonooxy(C_2-C_{24})alkyl, and ω-carboxy(C_1-C_{24})alkyl; R^{13} is independently selected from H, OH, (C_1-C_4)oxyaliphatic groups, $PO_3R^{17}R^{18}$, $OPO_3R^{17}R^{18}$, SO_3R^{17}, OSO_3R^{17}, $NR^{17}R^{18}$, SR^{17}, CN, NO_2, CHO, CO_2R^{17}, and $CONR^{17}R^{18}$, wherein R^{17} and R^{18} are each independently selected from H and (C_1-C_4)aliphatic groups~~; and Z is ~~–O- or –S-~~.

95. (currently amended) A method ~~of enhancing the immune response in an animal to an antigen which comprises administering to the animal a composition~~ according to claim ~~30 in combination with an antigen~~ 94 wherein the saponin is selected from naturally obtained saponins, synthetically obtained saponins, saponin conjugates, saponin derivatives, and saponin mimetics.

96. (new) A method according to claim 91 in which R_1, R_2 and R_3 are each saturated C_{12} acyl; n is 0; p is 1; and R_6 is OH.

97. (new) A method according to claim 91 in which R_1, R_2 and R_3 are each saturated C_{10} acyl; n is 1; p is 1; and R_6 is OH.

98. (new) A method according to claim 91 in which R_1, R_2 and R_3 are each saturated C_{10} acyl; n is 0; p is 0; and R_6 is COOH.

99. (new) A method according to claim 91 in which R_1, R_2 and R_3 are each saturated C_{14} acyl; n is 0; p is 0; and R_6 is H.

100. (new) A method according to claim 91 in which R_1, R_2 and R_3 are each saturated C_{12} acyl; n is 2; p is 0; and R_6 is H.

101. (new) A method according to claim 91 in which the saponin is a Quillaja saponin.

102. (new) A method according to claim 101 in which the saponin is QS-21.

103. (new) A method according to claim 101 in which the saponin is isotucaresol.

104. (new) A method according to claim 101 in which the saponin is O-carboxymethylisotucaresol.

105. (new) A method according to claim 91 in which the composition is an aqueous composition.

106 (new) A method according to claim 105 in which the composition further comprises one or more surfactants.

107 (new) A method according to claim 105 in which the composition further comprises one or more phospholipid surfactants.

108. (new) A method according to claim 94 in which R_1, R_2 and R_3 are each saturated C_{12} acyl; n is 0; p is 1; and R_6 is OH.

109. (new) A method according to claim 94 in which R_1, R_2 and R_3 are each saturated C_{10} acyl; n is 1; p is 1; and R_6 is OH.

110. (new) A method according to claim 94 in which R_1, R_2 and R_3 are each saturated C_{10} acyl; n is 0; p is 0; and R_6 is COOH.

111. (new) A method according to claim 94 in which R_1, R_2 and R_3 are each saturated C_{14} acyl; n is 0; p is 0; and R_6 is H.

112. (new) A method according to claim 94 in which R_1, R_2 and R_3 are each saturated C_{12} acyl; n is 2; p is 0; and R_6 is H.

113. (new) A method according to claim 94 in which the saponin is a Quillaja saponin.

114. (new) A method according to claim 113 in which the saponin is QS-21.

115. (new) A method according to claim 113 in which the saponin is isotucaresol.

116. (new) A method according to claim 113 in which the saponin is O-carboxymethylisotucaresol.

117. (new) A method according to claim 94 in which the composition is an aqueous composition.

118 (new) A method according to claim 117 in which the composition further comprises one or more surfactants.

119 (new) A method according to claim 117 in which the composition further comprises one or more phospholipid surfactants.

120. (new) A method according to claim 94, wherein the antigen is derived from the group consisting of Herpes Simplex Virus type 1, Herpes Simplex virus type 2, Human cytomegalovirus, HIV, Hepatitis A, B, C or E, Respiratory Syncytial virus, human papilloma virus, Influenza virus, Tuberculosis, Leishmaniasis, T.Cruzi, Ehrlichia, Candida, Salmonella, Neisseria, Borrelia, Chlamydia, Bordetella, Plasmodium and Toxoplasma.

121. (new) A method according to claim 94, wherein the antigen is derived from tuberculosis.

122. (new) A method according to claim 94, wherein the antigen is a human tumor antigen.

123. (new) A method according to claim 122, wherein the tumor antigen is derived from a prostate, colon, breast, ovarian, pancreatic, brain, head and neck, melanoma, leukemia or lymphoma cancer.

124. (new) A method according to claim 94, wherein the antigen is a self antigen.

125. (new) A method according to claim 124, wherein the self antigen is an antigen associated with an autoimmune disease.

126. (new) A method according to claim 125, wherein the autoimmune disease is type 1 diabetes, multiple sclerosis, myasthenia gravis, rheumatoid arthritis or psoriasis.